

From owner-qrp-l@netcom.com Tue May 2 22:57:27 1995
Date: Tue, 2 May 1995 15:57:27 -0700 (PDT)
From: Monte Stark <ku7y@sage.dri.edu>
Subject: ***DAYTON***
Message-Id: <Pine.SUN.3.90.950502155151.15008C-100000@nimbus>

I just got off the plane from Dayton a couple of hours ago and went through the build up of mail here on qrp-l. I enjoy it all.

I want to say thanks to all those that made my first trip to Dayton so nice. Far too many to list, but let me just say that I meet many of the qrp-l group and not a "clinker" in the bunch!

It's one of those things in life that really can't be described. You just gotta get there!

And now for a nap! (Maybe even a shower first).

73, Ron

.....KU7Y.....Monte "Ron" Stark.....
.....ku7y@sage.dri.edu.....Sun Valley, Nevada....
.....ARRL.....NorCal #330.....NRA LIFE.....

From owner-qrp-l@netcom.com Tue May 2 18:41:00 1995
Date: Tue, 02 May 1995 13:41 -0500 (CDT)
From: "Muenzler, Kevin" <MUENZLERK@uthscsa.edu>
Subject: Re: 40M, noise and the HW-8 from P.R.
Message-Id: <01HQ12RMXDP20061TI@uthscsa.edu>

Clark Savage Turner WA3JPG writes:

>Howdy!

>

>The first paragraph of your message to qrp-l seems to indicate that
>a lack of sunspots affects 40 meter propagating adversely. In my
>many years of hamming, I have experienced the opposite effect.
>When sunspots are high, 40 meters is very tenuous, along with 75
>and 160. When sunspots are low, these lower frequencies tend to
>do better overall.

>

>I am still not sure about the theory behind this. Am I wrong, technically?

>
>Clark
>WA3JPG

You're right Clark, at least in my experiences. I've noticed that when sunspots are high 40 and 80 aren't worth beans until just before sunrise. Even then it is good only to the "west" and not very far. Generally lower sunspot counts mean lower solar activity. Lower sunspot activity means a calmer magnetosphere (sp?). A calmer magnetosphere means two things: 1 - lower "ionospheric" noise and 2 - a more defined F-layer at night. The reason I put ionospheric noise in quotes is because most of the nighttime noise (other than lightning crashes) actually comes from charged particle entering the magnetic field of the Earth and spiraling into the poles (auroras.) This generates an extreme amount of noise that is channeled into the ionosphere. The lower you go in frequency the more apparent the noise becomes.

Hope this helps.

Kevin Muenzler, WB5RUE
muenzlerk@uthscsa.edu

Kevin Muenzler, WB5RUE
muenzlerk@uthscsa.edu

From owner-qrp-l@netcom.com Tue May 2 20:07:17 1995
Date: Tue, 2 May 1995 15:07:17 -0500 (CDT)
From: Kevin Anderson <anderson@ncrsun1.ncr.usace.army.mil>
Subject: Re: 7040 vs 7030
Message-Id: <Pine.SUN.3.91.950502150359.7495B-100000@ncrsun1>

On 2 May 1995, evans ken wrote:

> While buying a 7040 crystal at Dayton, one of our friends from the UK
> commented to me that "the rest of the QRP world uses 7030, why is North
> America on 7040?" I really don't know the history behind this. Why the
> difference? We seem to be aligned on the rest of the bands. For those using
> VFOs its easy to move, but not so for a rock bound rig. Can anyone out there
> give me a history/background lesson. I'm looking for information, not trying
> to open another debate!

Can't give you history, but I appreciate it being 7040 in that we can have some bandwidth around it and not worry about being out of band for us folks not US extra class yet :-)
Cheers/73. Kevin, KB9IUA E E

* * * * *
Kevin L. Anderson, CENCR-PD-W, U.S. Army Corps of Engineers
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* * * * *
Opinions expressed here are my own and do not represent the
U.S. Army Corps of Engineers or the Federal Government.

From owner-qrp-1@netcom.com Wed May 3 16:20:37 1995
Message-Id: <v02110102abcd5d093446@[128.174.91.179]>
Date: Wed, 3 May 1995 10:20:37 -0600
From: raybo@ux1.cso.uiuc.edu (Ray F. Boehmer)
Subject: <didn't bother with a subject>

subscribe

From owner-qrp-1@netcom.com Wed May 3 00:05:04 1995
From: NYOUNG@nova.wright.edu
Date: Tue, 02 May 1995 20:05:04 -0400 (EDT)
Subject: colors, coorpees & all that stuff...
Message-Id: <01HQ1FXAYRYW8WWZ3E@nova.wright.edu>

So what's the big deal here? Luis put some serious slam on
peeps who wanna have a neat lookin' radio. I mean, let's get
like serious here, peeples.

First off, what's wrong with Spryrogyra? I mean like I listened
to 'em when they were hot stuff and I will like to whip on the
jams now and then between like my like Kraft Werk CDs. It like
kinda like breaks the monotony, like you know. And besides, I don't
think it's any big deal, like what music I have on when I'm playing
with my radio even if it does have all the colors of the rainbow
on it. I mean like we're talking serious big time post-modern here
doods. Like my radio has all these little things in it with like
colors and stuff, you know. And like so I just get the colors to
show on the outside. It's simple, dood. You bild the radio in a
plexiglass box and let all the stuff inside like shine out, you
know?

But Beavis, do radios have vowels?

Arturo Sandoval Rules, dood.

73

Nils

WB8IJN &c

Most recent member of the Dinosaur Battalion

From owner-qrp-l@netcom.com Wed May 3 13:07:20 1995
Date: Wed, 3 May 1995 06:07:20 -0700 (PDT)
From: Steven Wilson <randyw@crl.com>
Subject: Re: colors, coorpees & all that stuff...
Message-Id: <Pine.SUN.3.91.950503060518.17802A-100000@crl5.crl.com>

Dinosaur Battalion ? Does that mean your're absolute or that you
paint every thing in the new amry jungle camouflage colors ?

de stan AK0B

From owner-qrp-l@netcom.com Wed May 3 16:10:14 1995
Message-Id: <199505031611.JAA28110@netcom22.netcom.com>
Subject: Re: colors, coorpees & all that stuff...
Date: Wed, 3 May 95 9:10:14 PDT
From: Eric Swartz WA6HHQ <erics@cruzio.com>

Nils,

Just a note to let you know how much I enjoy your great posts to the list.

One question though, (which I forgot to ask you at the Dayton QRP suite.) -
Did you take too many drugs in the 60's, or are you consuming too few now?

Keep up the good work.

From Santa Cruz, on the Left Coast, where QRP is 'Knarly DUDE!'

Eric WA6HHQ erics@cruzio.com

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From owner-qrp-l@netcom.com Wed May 3 14:37:40 1995
Date: Wed, 03 May 1995 09:37:40 -0500 (EST)
From: "David Moody, KD8NY" <MOODY@admin.rose-hulman.edu>
Subject: Colors, Dayton, "band rally", etc., usw., and the kitchen sink...
Message-Id: <01HQ28HQGVMMHTRWYV@ADMIN.Rose-Hulman.EDU>

Glad to hear that we may have a better reflector site...
Now let's see, qrp-rig-color-l, qrp-dayton-wx-l, qrp-dayton-recap-l,
qrp-each rig here-l, qrp-misc-l... oooh, what fun for all of those who
can quickly subscribe and unsubscribe ;^)
Oh yeah, is it too early to start thinking about qrp-fd-l, and how about
qrp-peoria-wx-l. ;-)

Just kidding, glad to have this list, whether the information is worth
anything to me or not, it is worth something to someone and it's just
a lot of fun! The propagation is pretty good, signals are loud, and
people don't step on each other too much.

On the subject of rig colors, it is interesting to see everyone's artistic
nature come through. %-)

On Dayton, I love seeing everybody's comments about what they saw, who they
saw, etc. I was only able to be there Saturday, so it is good to hear
about all of the stuff that I missed. Next year, (the date changes, so
will the weather), I will be there for a longer period of time. Should be
lots of fun.

As to Chuck's 30M Internet QRP-L rally. This idea reminds me of something
called AnaCan (I think that is right). A road race^H^H^H^Hrally from
Annapolis, MD to Niagra. This is a rally, not a race, although the
"winner" is the one with the shortest elapsed time. IQ130 falls into the
same stream of thought. The long length of time for the rally should keep
band utilization at a normal level, and not draw attention to the event. I
like the QSL card aspect. Good idea, I can think of all kinds of prize,
errrrr, best participation categories for this contest, errrrrr, event.
Since I bought a Kanga Oner kit set for 30m at Dayton, I guess this will be
the perfect event to give it a full smoke test. :-)

Well, that's my two milliwatts on a bunch of stuff...
72, David Moody, KD8NY, c'mon Field Day

David A. Moody | E-mail: David.Moody@Rose-Hulman.edu
Admin. Programmer/Analyst | Finger: mgrdam@crux.Rose-Hulman.edu
Rose-Hulman Inst. of Tech. | Amateur Call: KD8NY (CW QRP) ex-WB9MMD
Terre Haute, IN USA 47803 | (VMS Rules!!! (but RSTS was fun.))

Wk Ph: 812.877.8183 |

Any facts expressed within belong to everybody.
Any opinions expressed within are my own and are not
necessarily the same as my employer, family, friends, etc.
It is up to you to know the difference.

From owner-qrp-l@netcom.com Wed May 3 17:05:51 1995
Date: Wed, 3 May 1995 12:05:51 -0500
From: adams@chuck.dallas.sgi.com (chuck adams)
Message-Id: <199505031705.MAA06350@chuck.dallas.sgi.com>
Subject: Conventions

Gang,

Now that the "fever" has died down from the rush to Dayton,
we have to continue the momentum.

For the rest of the year, there are a large number of "local"
hamfests, etc. It is your opportunity to display and generate
local activities and bring guys/gals in your area information
that they are hungering for. We live in the information age ---
give them information. Let the individual decide if QRP operating
and building is for them or not.

I have gotten email from Doc Drake, W5TB, who is working with
the HamCom committee here in Dallas for the big meet in June,
the second weekend thereof. Here is some of the stuff he is
doing and some that I have added and/or suggested. Feel free to
borrow. As Doug Hendricks, KI6DS, says, borrow as much as you can
from others. Ideas add up and make a better product.

So consider the following for your club and area. Get a group
together and "do it". QRP --- just do it. To borrow from a
sneaker advertisement.

1. Build up a standup display for show and tell (W5TB)
 - a. Get photos of FD, rigs, schematics. (W5TB & K5F0)
 - b. Small samples of parts and identifying tags (K5F0)
 - c. Sample QSL cards (W5TB)
 - d. Sample awards (I can provide those)
 - e. Models of antennas, sample rigs, Use your imagination here gang.
2. Printup flyers showing local meeting times, membership

application forms for ARCI, NorCal, etc. (K5F0)

It cost me \$64 at Office Max to get 4,000 pages printed up. Get contributions if you don't have the money.

Make up a committee to layout the information vs. cost vs. money supply to get the greatest bang per buck.

You have to be somewhat professional about this and do the best job you can. People notice when things are done halfway (I have another term, but you know that one).

As for help from this group. In a few weeks we'll have an ftp site where we can put PostScript files with fancy layouts and camera ready handouts. Neato.

3. Point out the qrp internet group. But don't get 'em hooked where they don't do radio work. :-)
4. Talk up ARCI contests, Afield events, FD,
Get them out talking to the rest of us.
5. Look at setting up a contest for building. Both onsite and bring the best work you have. Ask around for prizes or get certificates for awards. Maybe later we can bring the winners of the local building contests to Dayton for a "big" finals contest. I seem to remember a mail-in contest for paper airplanes, but the administration for this would be too much unless you had a friend take it to Dayton and bring it back.

I'm giving a talk at HamCom and at the talk I'm showing slides and going to have a "boombox" there to play recorded QSOs and how a QRP signal sounds next to a QRO signal for both good and bad conditions.

So these are some ideas for you to talk up with your locals.

One of things that happened at Dayton on Sunday at the ARCI booth: Jerry Sy, AA3KN, came up and was talking to me and I asked him where he was from and what club he belonged to. Well, he said Pittsburgh, but no club. I made him President of a new Pittsburgh QRP Club, yet to be named, so if you are in the Pittsburgh PA area, get with him and arrange all the details. You start with one person and it grows from there. Just ask Doug Hendricks how that works. :-) It is difficult to convey a great deal of info in email, but the above was done in good faith and humour. Jerry knows what I mean. I didn't put him on the spot or put the pressure on him. So, if you are in the Pittsburgh area and you can't find him send me email or look him up in the callbook.

I still think that the bunch from Dayton is still trying to catch up

on their sleep. I know that I am. Three or four days is just about as long as the human body can take with only 4 hours of sleep a day. Doug and lot of the people there were running on pure enthusiasm. You try to cram a years worth of activities into a small time interval. A lot of time and money was spent in getting there by everyone and we feel that we just gotta "go for the gold".

I'll start scanning the pictures from Dayton and getting them ready to put at the ftp site. Get some disk space setup, you're gonna need it out there. :-)

dit dit

Chuck Adams K5FO CP-60 adams@sgi.com

From owner-qrp-l@netcom.com Wed May 3 04:50:14 1995
Date: Tue, 2 May 95 21:50:14 PDT
From: dh@deneb.csustan.edu (Doug Hendricks)
Message-Id: <9505030450.AA02686@deneb.csustan.edu>
Subject: Dayton (L000000NG)

Here is my report on Dayton 1995. It is very long. If you don't want to read it, hit the N key.

.....
I left Dos Palos on Wednesday right after school. This was to be the weekend, the one that I had been looking forward to for months. On the way out of town, I dropped the June issue of QRPP off to the printer, actually it went in the mail box. My bags were packed, and I was on the way. I drove to Coloma which is near Sacramento and spent the night with Vern Wright, W6MMA, who was to be part of the local group of NorCal members traveling to the convention together.

The next morning we got up at 4:00 AM to get to the airport by 6 so that we could check in for our flight. There, we met other members of the group, Jim Cates, WA6GER, Steve Cates, KC6TEV, and Roy Campbell, KN6QS. We were all excited, especilly Vern and Steve, who had never made the "trek to ham Mecca". The first leg of our flight took us to Minneapolis, where we met the other members of the group for the final push to Dayton. Ralph Butler, K6ZAN had flown out 10 days earlier to visit his daughter in Minnesota. Two other members, Eric Swartz, WA6HHQ and Dave Meacham, W6EMD met us there after flying in from San Francisco. Now the group totaled 8.

Our flight to Dayton provided one of the most humorous moments of the trip. One of our group, and I won't mention names to protect the innocent, had purchased a "Men's" magazine that shall remain nameless. He was on the plane, reading and laughing, and the guy sitting across the aisle from me made a comment about the "ham magazine that my buddy had". We struck up a conversation, mostly about going to Dayton and ham radio. Meanwhile, my

buddy is engrossed in his magazine, making all kinds of comments. Just as the plane started its descent, I asked my new friend what he did for a living. He chuckled, got a wry grin on his face, and said, "I'm a Lutheran minister". Suddenly the "magazine conniseur" became very quiet, while the rest of us roared with laughter at his obvious embarrassment. Then, the plane landed, and the rush was on. We rushed to get our bags, and waited as it seemed to take forever. After we got our bags, we rushed to get our rental cars, and we waited forever. Why is it when you anticipate something for so long that the closer it comes, the slower time seems to pass?

The group loaded their bags in the rental cars and we were off to the hotel, the Day's Inn Dayton South, which is in Miamisburg. I don't understand the name, but that is what it is. Naturally, all three cars immediately got separated and we headed down the freeway to find our rooms. When we arrived, we parked the car, and we rushed to get our rooms, and we waited forever in the line at the front desk. When we checked in, I told the front desk that I would be paying my bill with cash, and did I need to take care of it now. The lady kindly informed me that it would be fine to just wait until I checked out, as I had paid a deposit for the first night. Hey, this is ok. (heh heh)

We headed for our room and found our first surprise. Several buckets were in the hallway, and they were there for the obvious reason of catching water leaking from the roof. The hall had a musty smell to it. I put the bags down and immediately headed for the hospitality room. There I found activity and old friends. Dick from Oak Hills was there with his nifty new rig, a 4 band cw transceiver. Bruce Williams from MXM had a table, with his transceiver and receiver kits. He also brought some 7.040 and 3.560 crystals, which I immediately bought. (Only 1 of each, so don't email me and ask if I have extra to sell.) Dick from S & S was there with his line, including the new 80 meter transceiver, the Tac 80.

But, the best site was Ernie, W6MVN, who brought a model of his killer antenna system. You know Ernie, he always has the loudest signal on the band. I looked at the model and Ernie explained it. The first comment I made was, "Ernie, this is really neat. The guys all want to know how you get such a loud signal, and now I can see. Would you mind writing this up as an article for QRPP?" Ernie, grinned, reached down for a packet of papers and handed it to me. "Here you are, I have heard that you are not bashful about asking for articles, so I was ready for you."

This was great! I had been at the hotel for 15 minutes, and I had the first article. Then I noticed some parts on a table. Chris Hethorn had found some more goodies in his basement. I walked over said hello to Chris and looked at what he had. There was a bag of bags of toroids. I checked my parts list for the Cascade. Yes!! the FT37-43 was on the list. So I immediately bought all 300 of the toroids. Got a great price, a dime each.

Walking down the row of QRP dealers, I got to meet another Publisher, George DeGrazio, who edits and publishes Hambrew. I was so impressed with his efforts that I bought every one of the back issues, and subscribed for the next year. It was well worth the \$35, as there are lots of neat articles in the back issues. George charges \$10 per year to subscribe, and I would

like to give him and his publication an endorsement. It is well worth the money.

Bill Kelsey of Kanga was walking in the room as I was leaving, and we shook hands. We had made arrangements for the Kanga group and the NorCal group to go to dinner. Bill suggested "Bob Evans" Restaurant, which was across the street and is a great place to eat. We agreed to go find the rest of the group and meet in the lobby.

The dinner was excellent, but the company was superb. I will remember this the rest of my life. It was an unbelievable thrill to be able to eat dinner and visit with George Dobbs, G3RJV. George is the editor of Sprat, which I consider to be the best QRP publication in the world. It is the model that QRPP was developed from, and George is my idol in QRP. The first issue of QRPP was 90% stolen from Sprat, as I wanted to show the members of NorCal the type of journal that I was interested in having. The best way that I could think of was to use articles from Sprat. I never dreamed that I would ever get to meet and know George, so I didn't think that he would find out about it. But just in case, I did attribute all of the articles to their source.

George and I had a good laugh about that, and George said that we have come full circle as he is now using articles from QRPP. We both agree that the important thing is that we get information out to QRPers. Dinner was fun, but I don't remember if the food was good or bad. I was too busy listening to George and Dick Pascoe tell stories of their early days at Dayton and the early days of the G-QRP Club. The exciting news is that the G-QRP club is coming out with a kit. It will be a cw transceiver on 40, and it will use an SBL-1 as a mixer. The next issue of Sprat will have full details.

After dinner, we went back to the hospitality room. The first year I went to Dayton, there were maybe 15 people in the room on Thursday night. What a difference this year. The room was packed! It seemed like everyone was there, Chuck Adams, Jim Fitton, Buck Switzer, Bruce Moscolino, and then I started meeting all of the internet gang. So many names, so many faces. Everyone wanted to see the Cascade, so I brought it to the room and popped the top off the case. That was all that it took. I started handing out brochures like crazy. I kept looking at name badges. I wanted to meet Mike C., WA8MCQ. He was supposed to be here. All night long, I looked, and I couldn't find him. Finally about 11:30 I asked Bruce where he was. They were riding up together, and I knew that he would know Mike. Bruce grinned, and introduced me to Mike C, who was standing right next to me and had been talking to me for several minutes. Mike has a great sense of humor, as I had went up to him earlier and asked if he knew which guy was Mike Chazewski, Chajeweski, Shahujewski, I said the name about 4 or 5 times, all wrong. He said that he hadn't seen him. Then, later when we were introduced he had some fun! The first one was Mike's. He got me. That's ok Mike, I am already plotting my revenge. I love a good joke.

I asked Mike if he had brought his famous tiny rigs. And they were all there. He had two of the DB-25 pill bottle rigs, the rig in a key, and the "Tiny Weekender". All of Mike's rigs are tiny, and neat to look at. We

then started talking about ARCI and its status. We agreed that the proposed constitutional changes that Buck Switzer had worked on were things that the group needed. The group gradually dwindled, and finally Mike and I were the last to leave at 2:15 AM.

I return to the room, and my roommates, Jim and Steve are both sound asleep. I shower, break out the cot, (last guy in gets the cot), and drift off to sleep at about 2:30. Suddenly, Jim is calling my name. What the night is over already? Yep, its 6:30 AM, and we roll out of bed. Not too bad, 4 hours of sleep.

The group meets at Bob Evans for breakfast, and then we head to the convention. The first place that Vern, Roy and I headed for was the tent in the back corner of the flea market where Fred Reimers of FAR Circuits has his booth.

As we were walking through the rows and rows of booths, we stopped to look at some parts. Vern walked across the aisle, and then said, "Hey Doug, come look at this." There was a guy with a booth that was selling receiver kits. It was actually the boards and the plans, but it looked neat. He had a sample of the kit already built, and the neat thing was the digital display, made out of simple, easy to find common chips. I struck up a conversation and asked him if he was a member of NorCal or ARCI. He said, "No, I am not, but I have heard of them." I quickly asked him if he would like to find out about the groups, and added that I would send him information if he wanted. (Softened him up for the kill) Then I said, "Would you let me print your project as a construction article?" He said ok, and now I had Article number 2 for QRPP from the Dayton 95 trip.

We then continued towards Far Circuits. That is where Chuck Adams went too! I visited with Fred, picked up the boards on my list, and suddenly realized that I was separated from Vern and Roy. That was not a problem, as we had agreed to meet at noon at the G-Club booth. So I started wandering up and down the aisles, looking at all of the goodies on display. Dayton always boggles my mind with the things that are offered at the flea market. It is over priced by California standards, and I think the reason is that we have so many more opportunities for flea markets because of our weather. Also, I can't believe the absolute junk that is there. We all agreed that there was a huge amount of material that was good for nothing but trash can filler. It amazes me that these guys pack the stuff up, haul it to Dayton, and expect someone to buy it. It is even more amazing to see people buying it. But it doesn't happen too often.

I am looking for an Argonaut 515, but don't see one. Later I heard someone found one for \$325, and that it was really clean. One of the things that I have is a list of the parts for the Cascade. It is on both sides of a 3 x 5 card, and is printed in 3 point type, which is small. I wasn't able to find the parts that I needed, as they were the wrong foot print, or they wanted too much money, more than I can order them from Digikey or Mouser in some cases.

Suddenly, I see a booth that has boxes and boxes of gears, pulleys, and other mechanical parts. This is neat stuff!! There was a box of brass collars that were about 5/8's to 3/4's of an inch in diameter with a 3/16"

hole drilled in them. The neat thing was that there were two holes drilled and tapped for 6-32 ninety degrees apart. Hey, all I have to do is drill out the center hole to 1/4", drill and tap two 2-56 holes on the face, and I have a dial hub. It is time to go for the kill.

"How much do you want for the collars?"

"Oh, about a quarter each."

"What if I take them all?"

He gets excited, looks at me and says, "Make me an offer."

Those words are music to my ears. I offered him a ridiculous offer of \$5 for all of them, thinking that I am prepared to go to \$10, as there are about 125 of them. He then just about broke my heart, as he said, "Deal." Gosh, this was like falling out of bed. I had my first prize purchase, and I was dissatisfied. The guy didn't even haggle at my offer. He just accepted it. How much money had I wasted? I had thought that I was making the ridiculous offer, and he was thinking, "Boy do I have a pigeon here. He made me an offer that is twice what I thought I would get, and he is taking them all, so I don't have to haul them home. Sheesh, those hams from California are easy. Hope there are more where he came from."

I walked away with a smile and he had one too. That is Dayton!

It was time to go to the G-Club booth and meet Roy and Vern. I got there a little early and saw the Practical Wireless Booth across the way. I said hello to Rob Manion, the editor, and also to Kathy and "Toad", the two very attractive assistants that work for Practical Wireless and come to Dayton every year. Toad is a nickname, and I had read that she had her new ham license now. Chuck Adams was standing beside me, and he asked Kathy if she had her license. When she said no, Chuck made her an offer. He took out a \$100 bill, and said that if she got her license by next year, the \$100 was hers. Kathy, quickly got a piece of paper, copied down the serial number, and told Chuck that she wanted that exact same bill. Rob saw this and wanted a picture of Chuck and Kathy holding the \$100. Of course, I don't know what the caption will be in the magazine, but it could be great. Dick Pascoe was suggesting all sorts of juicy things, but we will have to wait and see.

The next stop for me was the TenTec booth. I was shocked to see that they had raised the price of the 9-band Regenerative Receiver \$20 to \$59 from \$39 that it was last year. I found found one of the "wheels" and he listened to my complaint that I had waited 11 months for my kit that I had purchased last year and been promised delivery in 4 to 6 weeks. It is a great kit, and I told the TenTec rep that, but it is horrible to make a customer wait 11 months and never notify them that it was going to be late. He agreed and thanked me for my concern and my comments on the kit.

I wondered around the commercial booths inside, and then it was time to go to Room 2 and listen to George Dobbs presentation on QRP construction. His talk was excellent, and very well received. John Liebenrood, K7RO was there, and he had his prototype of the Cascade. John's is painted with Krylon flat black (just like the TenTec Scout) and has white lettering. It is neat. George showed the group the Cascade, and mentioned that it was the next NorCal kit.

John and I then walked around the displays, I showed him a couple of

parts that I had found, and we then headed back to the hotel where we were to meet the rest of the NorCal group for dinner. John has talked to most of the group on the phone and through the internet, but he had never met them in person. Wayne Burdick, N6KR was the final member of our group to arrive, and he was picked up at the airport by Eric, WA6HHQ. I introduced Wayne to John, and we went to dinner. It was neat to see the 4 "Engineers"; Wayne Burdick, John Liebenrood, Dave Meacham and Eric Swartz sit together and talk shop. We had three booths at the restaurant, and we had to remind them that it was time to leave so we could get back to the hospitality room. I think that they would have stayed there for hours if we hadn't broken it up.

The moment that I got to the hospitality room I was besieged by guys wanting to get the boards for the "Great Dayton Buiding Project". I had picked them up from Fred Reimers that morning. This was something that Chuck Adams had come up with. He said that it would be fun to see the guys build a project at the hospitality room. Dave Joseph, WA6BOY, did an article called the Pixie 2 that was a simple 75 meter transceiver. He designed a board, and I decided to use it for the Dayton project. I wrote it up and it was supposed to have a parts list. In my excitement at going, I forgot to put it on, but the schematic was labeled, well, sort of. The transistors were not labeled. Oops, well, let them use any thing that they wanted. Lot's of you are probably thinking, hey that was pretty sharp. Doug wanted to show them that you can substitute parts, that it doesn't have to be an exact copy to work. That was not the case, it was a mistake on my part, but one that worked out well. They did learn that you can make subs in a circuit and still have it work. But it was not designed that way.

I had thought that the room was crowded on Thursday, but Friday night was SRO. Roy Lewellyn was there with a new version of his antenna software, called Eznec. It is a step up from Elnec. Roy stayed for several hours and renewed acquaintances with all of his friends. Gary Diana came up and showed me the most beautiful Epiphyte that I have ever seen. It is in a home made case, but it looks professional. Gary put a clear plexiglass cover on it so that you can see the inside and look at all of the parts. Gary makes all of his own boards, and is a true craftsman. I hope the pictures that we took turn out, because it is neat.

Again, the crowd started to dwindle, and suddenly it was Buck, Hank, Mike C. and me, all sitting around a table having a good time visiting. Hank told me that this was his 19th Dayton in a row, and 24th out of the last 25 years. Hank and Buck are a wealth of information about the past history of Dayton, and about ARCI. They lived it. Someone should write a history of the ARCI. They need to get started on it, as it will soon be hard to do as the information gets harder and harder to come by. The round table lasted untill 2:00 AM, and it was time to get to bed. I had been up since 6:30, with only 4 hours of sleep. By the time I got my shower, it was 2:30.

Jim hollared again that it was 6:30. Gosh he likes to get up early. What was the weather like? They were talking rain last night for today. But it was absolutely beautiful. Clear skies, no wind, and warm. After last year, this was very welcome. Saturday is the day that I planned to do my serious shopping of the things that I wanted to be sure to get.

I had several things on my list, but I definitely wanted to get some TenTec cases, a W9GR DSP III filter kit, a 2 position coax switch, 50 feet of high dollar coax, an MFJ SWR meter for mobile work and a couple of pieces of software. One of the neat things that TenTec does is that they bring all of their cases to Dayton, and you can buy them at the >10 discount. It is a huge savings. I bought six of them. Next I went to the W9GR booth and had an interesting experience. Chuck Adams and Vern Wright were with me, and I am glad, as you wouldn't believe what I am about to tell you.

Chuck and I wanted to get the W9GR filter, and Vern knew where the booth was. He took us through the maze of booths and finally found it. There was a guy buying one, and we waited for him to finish the transaction. Chuck then bought his kit, and I told the guy that I wanted one too. He asked me for my name and call, and I said, "Doug Hendricks, KI6DS".

The guy said "Yeah right." I was puzzled and I showed him my name badge that had Doug Hendricks, KI6DS clearly printed on it. He was the one that looked puzzled. Why? Because the guy who bought the filter ahead of Chuck was named "Doug Hendricks". Talk about a small world. I just wish that I had heard the guy give his name, and then could have said, "Deja Vu". Only at Dayton.

It was 3:00 and time for my 2 hour shift working the ARCI booth. If you have never been to Dayton, I need to explain "QRP Row". The first booth that you see is the G-QRP Club, with all of the Kanga Kits, and the famous personalities from England manning the booth. George Dobbs and Dick Pascoe are there virtually the whole time and are very friendly. Next is the Michigan QRP Club booth, here you would find one of the Michigan members taking renewals and new subscriptions. Kathy and Dick from S & S Engineering also had their line of kits available.

Then comes the ARCI booth. Mike Bryce made his Mac Powerbook available with the ARCI roster on it. It was really easy to find out a past number or information when someone came up and said that they used to be a member, but had lapsed. We were able to look it up and give them instant recall. When new subscribers subscribed, they received the current April issue. That was great, to give them instant feedback so that they did not have to wait 2 or 3 months to get an issue. Great job guys.

At 5 it was time to go back to the hotel and get ready for the ARCI board of directors meeting. We met in Myron Koyle's room, and it was really neat to see and be a part of a group that had a common interest, to get ARCI back on track.

We reviewed and approved several changes to the Constitution. One of which was the reduction in Board members from 15 to 6. It is just too difficult to get 15 people to agree, and there really is not a need for that many. As it now stands there will be 2 directors elected each year to serve a 3 year term. There will 2 types of directors, regional and at large. The regional directors are as follows: East (1,2,3,4 Call areas), Central (5,8,9,0 Call areas) and West (6,7,KH6,KL7). At large can come from anywhere. Since I was appointed to the board and not elected by the members, I volunteered to have my regional position come up for election this year. I will be a candidate for the West regional representative. Hank Kohl K8DD was

selected as the Central Representative, and Mike C. WA8MCQ, is the Eastern Rep.

Buck Switzer was voted in as President to fill the term of resigned President WN2V. Mike C. was voted in as Vice President to fill Buck's term.

It was also decided that the constitution would be published in a future edition of QRP Quarterly. The quarterly will also increase in size to at least 48 pages, and will be due at the printers on the first of the month preceeding publication date, which should allow for more timely distribution to the members. This is great news. Monte Stark was formally appointed as the Editor.

ARCI will become much more visible to the rest of the members who don't have the opportunity to attend Dayton. We will be setting up booths with ARCI banners at major hamfests around the country. ARCI will be trying to arrange for QRP Forums, and for hospitality rooms in the evening.

[NorCal will work with ARCI and have a booth and hospitality room at Pacificon in October. ARCI will pay for the booth rental and for part of the cost of the hospitality room. NorCal will pick up the difference. Also, NorCal has extended an invitation to Derry Spittle, VE7QK and John Liebenrood, K7RO, to attend Pacificon and be the QRP SSB forum speakers. Wayne Burdick, N6KR and Stan Goldstein, N6ULU have been invited to be the QRP CW forum speakers. This is the type of thing that can happen when local and regionnal clubs work with the national club. If you would like to see this happen at your major hamfest, contact Buck Switzer for more information.]

ARCI has a committment from Buck Switzer to lead and serve for more than just an interim period. This is exactly what the group needs. I know that there has been a lot of complaining about ARCI, and most of it was justified. But I have a good feeling about the organization now. If you could have seen the enthusiasm at Dayton, you would know what I am talking about. Take it from me. ARCI is well on the road to recovery, and it is a vibrant, healthy, exciting organization again.

After the board meeting we went to the ARCI QRP Banquet. Pete Meier did ALL of the work on this by himself. Congratulations Pete, it was a great experience. Pete lined up two speakers, the President of TenTec and Wayne Burdick, N6KR. Both gave outstanding presentations. Then, he lined up about 15 or 20 great prizes for the attendees. The grand prize was a Sierra with 5 band modules donated by NorCal and won by Byron Johnson. I heard that Byron turned down an opportunity to trade his Sierra for an Argo 515. Wow! I don't think I could have.

After the banquet, we all returned to the hospitality room where we started the Great Dayton Building Contest. We had lots of entries. I took 50 boards, and every one of them was sold. The contest was a kick to watch. Bob Gobrnick, Jim Fitton and Paulette Quick were at one table. They had more fun than you can believe. Paulette had never soldered anything before, and it was really neat to see Jim Fitton explain to her how to solder and put a kit together. Enthusiasm was quite high and there were some surprising "parts subs" made. I even saw one air wound coil. Several used toroids, and the output transistors ranged from 3904's to 2N2222's. You see, I forgot to label the transistor on the handout sheet, so it was builder's choice.

Friday I stopped by Debco's booth and found that you could buy every part from them at reasonable prices. The circuit was the Pixie 2 that appeared in Volume 1, #3 (December 93) of QRPp. It was done by Dave Joseph, WA6BOY, who has designed a circuit board for the original article. I have printed the article in the June issue of QRPp which is at the printers now. The winners of the contest were restricted to two categories, first signal on the air, and greatest power. Jim Stafford and Ken Evans won the prize for first on the air with Jim getting the QRPp subscription extension and Ken the 1 year subscription to Hambrew. Jim Stevens and Ben Palmer got the prize for the greatest power, 300 mW!! No one was able to get the receiver to work, I don't know why, but it may have been something to do with the type of antennas they were using. Most of them used dummy loads. Jim received an extension to his QRPp subscription and Ben was the recipient of a Coaxial Dynamics QRP Power meter and dummy load from Michigan QRP Club. Bob Gobrick won an audio filter from the St. Louis QRP Club.

Saturday night we also had the prototypes for the Cascade and the St. Louis Tuner. The Cascade is the next NorCal project, and the St. Louis Tuner will be the winter NorCal project. The Cascade is a dual band SSB transceiver that puts out 8 watts on 75 and 5 watts on 20 meters. It is designed by John Liebenrood, K7RO. The St. Louis Tuner is a masterpiece. It has been developed as a club project by the members of the St. Louis QRP Club. The tuner uses a T match, and has dual meters, 10 watt dummy load, Stockton swr bridge, and is based on the work of Dave Stockton, Doug DeMaw, and Mike Michael. The NorCal kit will be a cooperative project between the two clubs. The St. Louis Club has done the design, in fact they have spent over 4 years working on it. Dave Gaulding, Keith Arn, and Randy Miller were at Dayton and they had all of the prototypes that they had used to develop the final project. It was really interesting to see them. The kit will have the following input antenna connectors: SO239, BNC, RCA, Binding Post for Long Wire, Binding Posts for Balanced line. Just about every type that you could ever need. We will sell these kits for \$50. They will come in either a NorCal 40 or Sierra case. All parts will be included, and there is plenty of room in the case for other options such as a battery, keyers, etc. NorCal will do this kit after we finish with the Cascade. Dave Gaulding, who has been in on this project from the beginning will do the main writing of the manual.

I didn't get to bed until 3:45 this night, as the guys kept trying to get the receivers to work on their kits. But, again, it was fun and worth it.

Sunday morning dawned wet, cold, and windy. This was the Dayton that I had come to expect. We went to the arena, and I prepared to give my presentation on how to attract members to a club meeting, and was on the forum with the other QRP Club leaders. Then, I went across the arena to speak at the end of Bicycle Mobile Hams meeting. I thought that the QRPers showed an interest in the Cascade, but it was nothing compared to the reaction shown by the bicycle mobile hams. After the forum, there was a huge rush for the brochures. John Liebenrood, K7RO who designed the Cascade, had this group in mind when he designed the rig. Jim Kortge, also was at the

forum, and he has a nifty project, a 2 watt in, 20 watt out Linear. It is about the size of a handi-talkie, and is really quite impressive. Of course I made arrangements for another article for QRPP. While Jim, John and I were standing around talking after the forum, a guy comes up and says that he has a question for me. "Fire away, but I don't guarantee that I will know the answer."

"Why doesn't anyone use surface mount components?" was the question.

I didn't have an answer, but when I found out that he was an expert in surface mount construction, I twisted his arm and he agreed to write a how to article for QRPP on surface mount construction. He did say that you will definitely need either a stereo microscope or one of the magnifiers that fits on your head and has the tilt down feature. This will be an article that will not appeal to all of us, but I think that there is some interest there. One of the things that I want to do is to see if I can build a transceiver in one of the fuse boxes suggested by Mike C., WA8MCQ. I picked up 4 of them at the flea market.

Suddenly, it was time to go. The arena was closing, and the three of us riding in our car had agreed to meet at the G-QRP club booth at 2:00. We wanted to stop for dinner on the way to the airport. Somehow we got our signals crossed, and I was the only one to show up. I waited as long as I could, and then was forced to leave by security. The weather was colder and the wind was blowing harder. No one was at the car, so I made 3 trips back to the arena to see if the guys were hanging around waiting for me. Finally at 3:30 they showed up at the car. They were tired but happy. I was cold, frozen, wet, miserable, and not very happy. But, I realized that hey, this too is part of Dayton. It was the only time all weekend that we missed connections.

The plane ride home to California was very smooth and uneventful, the best kind! But, when we landed it was another story. It was raining, and raining hard. I waited for my luggage, asked Vern and Roy to watch it while I went to the parking lot to get my pickup. I couldn't find my truck, it was not where I was sure that I had left it. Finally after 30 minutes of walking up and down the rows, I suddenly remembered in my foggy, tired mind that I had written down the row number on the ticket. I opened my wallet and there it was, 9B!! It was a quick matter of walking about 50 yards and there was my pickup, waiting for me right where I had left it.

I picked up the luggage, said goodbye to all the guys, and headed for home. I pulled into the drive way at 2:30, tired, happy, and looking forward to next year.

72, Doug, KI6DS

From owner-qrp-l@netcom.com Tue May 2 13:00:23 1995
Date: Tue, 2 May 1995 06:00:23 -0700
Message-Id: <199505021300.GAA16554@ix4.ix.netcom.com>
From: gamma7@ix.netcom.com (J. Duffy Beischel)
Subject: Dayton - '95

Well, there are two things hurting after Dayton. My feet and my wallet. Bought an MFJ 9420 20 meter QRP SSB radio. WI0T and I hooked it up on Friday night (20 meters was open very late on Friday) to my Butternut Vertical. This thing worked all over the place with 57 to 59 reports. Receiver is very sensitive and the audio is very strong. Only problem that I can see is that the radio is not too selective. Still a great value since I got it for only \$189 (new).

Would have liked to see Index at Dayton, but they are probably concerned with generating more demand than they can handle. Maybe next year!

Sorry to miss all the QRP meetings but I was just too tired to party.

Regards,

Duffy - WB8NUT

From owner-qrp-l@netcom.com Wed May 3 11:41:31 1995
Date: Wed, 3 May 1995 09:11:31 -0230 (NDT)
From: Bob Gobrick V01DRB/WA6ERB <bgobrick@terra.nlnet.nf.ca>
Subject: Re: Dayton - '95
Message-Id: <Pine.OSF.3.91.950503090724.23581A-1000000@terra.nlnet.nf.ca>

Duffy,

You have to learn how to pace yourself at Dayton - hi. Trick is to take a brat&beer break (BBB) every couple of hours or so (even in the morning) and that will keep you going all day and all evening to the hospitality suite.

Duffy - you should have gone to the qrp hospitality suite - there was every rig conceivable there on Thursday, Friday and Sat evening (I'll do a review shortly), even the Index Labs QRP+.

Next year....

Caio 73/72 Bob V01DRB/WA6ERB

On Tue, 2 May 1995, J. Duffy
Beischel wrote:

> Well, there are two things hurting after Dayton. My feet and my
> wallet. Bought an MFJ 9420 20 meter QRP SSB radio. WI0T and I hooked
> it up on Friday night (20 meters was open very late on Friday) to my

> Butternut Vertical. This thing worked all over the place with 57 to 59
> reports. Receiver is very sensitive and the audio is very strong.
> Only problem that I can see is that the radio is not too selective.
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> Would have liked to see Index at Dayton, but they are probably
> concerned with generating more demand then they can handle. Maybe next
> year!
>
> Sorry to miss all the QRP meetings but I was just too tired to party.
>
> Regards,
>
> Duffy - WB8NUT
>

Bob Gobrick V01DRB/WA6ERB/VE2DRB Newfoundland, Canada

QRPer Galore - ARCI, GQRP, NORCAL, NEQRP, COQRP, MIQRP, NWQRP

Internet: bgobrick@terra.nlnet.nf.ca
rgobrick@public.compuserve.nf.ca

Compuserve: 70466.1405@compuserve.com

From owner-qrp-1@netcom.com Wed May 3 13:19:42 1995
Date: Wed, 3 May 95 08:19:42 CDT
From: gcouger@jsun.agen.okstate.edu (Gordon Couger)
Message-Id: <9505031319.AA00724@jsun.agen.okstate.edu>
Subject: Re: Dayton - '95

One of the local boys brought in an Index He had bought in Arkansas. It was s/n 481 he said that Index was running six weeks behind. I really liked the rig. He liked it a lot said he had 10 states of 40 ssb this week.

Gordon AB5DG

From owner-qrp-1@netcom.com Wed May 3 04:03:49 1995
Date: Tue, 2 May 1995 21:03:49 -0700 (PDT)
From: H Smith <hbs@crl.com>

Subject: Re: Dayton or everybody died?

Message-Id: <Pine.SUN.3.91.950502210156.999A-100000@crl111.crl.com>

On Tue, 2 May 1995, Paul Harden wrote:

> Gang,
> I mean like hey dudes, I kinda knew the rappin' would slow down a bit
> during Dayton, but this is ridiculous, like real far-out (oops, I think
> far-out was one of those 60's things).
>
> ... etc ...
>

Wow, a whole weeks worth of qrp-l in one posting :-)

Way to go Paul,

Smitty, NA5K

hbs@crl.com

From owner-qrp-l@netcom.com Tue May 2 22:25:31 1995

Date: Tue, 2 May 1995 15:25:31 -0700 (PDT)

From: Monte Stark <ku7y@sage.dri.edu>

Subject: Re: Dayton wx

Message-Id: <Pine.SUN.3.90.950502152405.15008A@nimbus>

On Sat, 29 Apr 1995 rarland@epix.net wrote:

> On my first visit to Dayton (1992) I was milling around in the parking
> lot and heard one ham say to another: "If the government wanted to clean
> up the gene pool in the US all they'd have to do is nuke Dayton!" After
> all the WX reports, I feel that we should bring this up to Janet Reno.
>
> 72 rich
>

No, no, no, nuke's are not QRP. She must use conventional as in Waco....

:-(

73, Ron

.....KU7Y.....Monte "Ron" Stark.....

.....ku7y@sage.dri.edu.....Sun Valley, Nevada.....

.....ARRL.....NorCal #330.....NRA LIFE.....

From owner-qrp-l@netcom.com Wed May 3 16:01:33 1995
Message-Id: <199505031307.GAA07390@mail4.netcom.com>
Date: Wed, May 3, 1995 08:07
From: "Ted Kell" <kell@mpac.jsc.nasa.gov>
Subject: DEBCO

Jim Stafford-W4QO <w4qo@america.net> Wrote the following...

Sidenote: By Saturday noon, I was mad because the construction contest project took about two hours out of the morning to find the parts, but then I realized I had spent only \$8 for parts and otherwise I would probably have spent hundreds on stuff I don't really need! We were all over the boneyard for two hours only to find that Debco inside had all the parts at one stop! BTW Debco seems rather reasonable in price. I'd think they would appear on some of our supplier lists(maybe they do!)

Thanks to all and see everyone next year!

73/72/jim/w4qo

I called 800 info and DEBCO in in Cincinatti, OH, 1-800-423-4499. They will send out a catalog if you call.

73

Ted Kell (kell@mpac.jsc.nasa.gov)

From owner-qrp-l@netcom.com Wed May 3 16:44:10 1995
Date: Wed, 3 May 95 09:44:10 MST
From: gervaj@master.lds-az.loral.com (Joe Gervais)
Message-Id: <9505031644.AA28077@master.lds-az.loral.com>
Subject: Re: Eyeball QRP QSO

Goran (EA8YU) wrote:

> Now my question is: For an two way eyeball qrp qso,
> do we have to whisper?

Yes. In a crowded room where everyone else is yelling. :)

7.3 de KD6PRD/7,

-Joe

QRP - It's not the size that counts, but what you can do with it...

From owner-qrp-1@netcom.com Tue May 2 20:34:33 1995
Date: Tue, 2 May 1995 15:34:33 -0500
From: adams@chuck.dallas.sgi.com (chuck adams)
Message-Id: <199505022034.PAA04592@chuck.dallas.sgi.com>
Subject: Field Day 1995

I know, it's early, but then again it's not.

The St Louis QRP group at Dayton, sent out a challenge to the rest of the QRP clubs. They want us all to get out for FD and work HB only HB antennas for FD. One with highest score published in QST wins.

The North Texas Club, Larry Jones et.al., accepts the challenge and will be there. I have to consider the Zuni thingy again. I owe Doug Hendricks big time. As you well know he keeps reminding the entire world. :-)
Maybe this time I'll get the instructions in time. HINT.

So, what's the rest of the QRP clubs doing?

dit dit

Chuck Adams K5FO CP-60 adams@sgi.com

From owner-qrp-1@netcom.com Wed May 3 17:50:55 1995
From: KD8FR@aol.com
Date: Wed, 3 May 1995 13:50:55 -0400
Message-Id: <950503134956_105422022@aol.com>
Subject: Heath HWA-9 Kits

Hi Gang,

While at Dayton, Al Rey, W8LRM had several Heath HWA-9 band pack kits available for sale. These packs are for adding the WARC bands, plus 10 meters to the HW-9 transceiver. He did not sell all of them and has several available for \$25.00 each, plus shipping costs. He can be reached by telephone at (616) 983-6052 or by mail at 706 Church Street, Saint Joseph, MI 49085. He is not on the L-net, so this is the only way to contact him.

Robin and I had a great time at Dayton and enjoyed meeting so many of you there. We are already looking forward to next year!

I will add my "thanks" to Preston, WJ2V for his QRP-L NET badges -- great job! Also, my "thanks" to Pete, WK8S for the excellent job of putting together the QRP Banquet. Much appreciation to both of you.

72/73, Lowell -- Michigan QRP Club

From owner-qrp-l@netcom.com Tue May 2 20:24:58 1995
Date: Tue, 2 May 1995 15:24:58 -0500
From: adams@chuck.dallas.sgi.com (chuck adams)
Message-Id: <199505022024.PAA04545@chuck.dallas.sgi.com>
Subject: IQ130

Gang,

Sitting behind the wheel of the truck for more than 30 hrs listening to high speed tapes and just thinking in general, you knew this was going to happen. Another happening on the bands.

Subject to some mods before June 1, 1995.

Since the Foxhunt turned out to be popular, thought for the summer we might try the following. Only this hopefully will not result in a lot of weekly reports. :-) Know how this group gets.....

IQ 130 - The first 30M Internet QRP-L rally, thus the IQ130 tagname.

1. Purpose to get some QRPers on 30 Meters that otherwise might pass this band up. Like this author. I didn't feel like fighting on 20M with CHC and digital and QRO. :-) :-)
2. Collect some data and see what the summer like conditions are on 30 Meters in 1995 while sunspots are low.

3. Generate some coordinated on-the-air activity again for this group.
4. Get a large number of homebrew rigs and kits on the air.
5. Get you to memorize and study the ARRL sections so you'll be ready for SS in November. :-) See QST or other ARRL publications for details on the sections.

Here are the preliminary rules and may change slightly, but should get you going and get you ready for the action.

- A. Homebrew or kitted rigs only. No ICOMs, no Yaesu's, etc. Get out or build the NN1Gs, OHRs, Danny's Small Parts, ugly construction or whatever. This includes receiver and transmitter. This is a challenge for builders to operate and operators to build. The best of both worlds. Well, maybe. :-)
- No half homebrew and half commercial rigs, please. Antenna(s), keyer, paddle, and accessories (no amplifier) may be commercial items.
- B. All contacts are to be from the same QTH for ALL contacts. You are allowed an antenna change, as this allows you to improve your conditions and experiment. Just keep a complete record of your changes and results thereof. The same for the rig.
- C. All power levels to be under 5 Watts. There will be a handicapping system. See below.
- D. The objective is to work as many ARRL sections (just like in SweepStakes) as possible withing the time limit specified. The sections are (hopefully no typos)

1 -	CT	EMA	ME	NH	RI	VT	WMA				
2 -	ENY	NLI	NNJ	SNJ	WNY						
3 -	DE	EPA	MDC	WPA							
4 -	AL	GA	KY	NC	NFL	SC	SFL	TN	VA	PR	VI
5 -	AR	LA	MS	NM	NTX	OK	STX	WTX			
6 -	EB	LAX	ORG	SB	SCV	SDG	SF	SJV	SV	PAC	
7 -	AZ	EWA	ID	MT	NV	OR	UT	WWA	WY	AK	
8 -	MI	OH	WV								
9 -	IL	IN	WI								
0 -	CO	IA	KS	MN	MO	NE	ND	SD			
VE-	MAR	PQ	ON	MB	SK	AB	BC	YU/NWT			

DX- Any not included above, i.e. DX countries other than US & Canada.

Now I count 77 sections and 1 DX catagory. To get them all is called

a "clean sweep".

E. Two power classes:

1.0 to 5.0 Watts out
<1.0 Watt output

F. Single Mode, CW Only. Frequencies between 10.105 and 10.125 MHz.

G. Dates: June 1, 1995 0000Z (UTC) to September 1, 1995 0000Z (UTC).
24 hours per day, Seven days a week during this time period.
This gives those who do not currently have a rig and or license
a chance to get there, although hurriedly. So if you have that
kit in the closet that you want to build for 30M, now is the
time to do so.

H. Scoring:

$\#QSOs \times (\#Sections + \#Countries) \times PF + 10 \times \#QSL\ Cards = Total\ Score$

QSOs is number of separate stations worked. No dups, i.e. same
station more than once, even if they change sections. If you
work a mobile station you get to count only the first contact. :-)

PF = 1.0 if you operate at one or more contacts at 1.0W or higher
PF = 1.25 if you operate at <1.0W for ALL contacts

You are not allowed to throw out contacts, i.e. decide
that you have enough at the low power. :-)

Prefixes from the same country, like XE1 and XE2, do NOT
count as separate multipliers.

The reason for the power factor is to allow the homebrewer and
those with kits at the lower power to gain a small factor
due to the added difficulty they will have. Also makes this
a thinking person's contest as you have to weigh all the
factors BEFORE starting out. You can start out at <1.0 and
then change and lose the factor, but you can not do the
reverse. OK?

I thought I would throw in the QSL card count (for the
QSOs on 30M during the period above) to stimulate QSL
exchanges. I know this is a touchy subject with some,
but let it rest. I also it raised the cost of the hobby
but some of us do collect 'em. No SASE necessary. Just keep
track and we'll summarize how successful we are at QSL

exchanges. I know that most QRPers do QSL 100 per cent on returns. They need the cards too. Maybe we might add rule if you are in the contest and don't QSL the you'll lose points. :-) Ideas? In the US, 77 sections could cost you \$25 or so in postage. Wow, the government is getting rich.

No, there is no handicapping factor for poor antennas, geographic location, etc. Sorry.

- I. NO (I REPEAT, NO) prearranged scheduled contacts. No email, no phone calls, no bbs arrangements, no postal cards, nothing to anyone on this list or anywhere else in the world via any physical means to arrange a contact. Also no arranging for cross town meetings on the air at club functions, etc. Random and random contacts only on the air. To do otherwise for even a single contact immediately disqualifies you. Period. Judges rule is final. Just get on the air and hope for the best.

No posting to the mail server when you will be on. A no-no.

Do send me the following and I will summarize to the group:

your call, name, QTH, long/lat (if you have it), ARRL section (this will make up a neat least for having handy to see if station is good for you, just like the foxhunt cheat sheet)

if you are going to get into the fray.

I promise to post this only once, two days or so before the 1st of September. I'll be outta touch for the first two weeks of Sept, but that'll be OK. I'll catch up when I get back.

- J. You do have to be a current member of the list at the time this starts or later. Not open to the entire world. :-) Just that part that is a friendly part of this wonderful group.

Now, I think I made it fair, but I'll hear about it if I screwed up. That's why I may make slight changes. Hopefully nothing serious. I'm trying to do this so it is fun for everyone. Don't make this your life's work.

I'll ask for logs and a GCR (general certificate rule, i.e. someone witness the QSL cards) to be sent via mail Sept 16th 1995 to me and will post a form at the ftp site later. Stay tuned for additional

details.

OK, now you ask what do I get. First prize (this is not a contest) is one complete NN1G SWL kit with case. This is an \$80 value.

I saw the NN1G case kit, which lists for \$30, at Dayton. Very compact (cozy Dave says) and just slightly larger than the SWL board. Case, connectors, pots, and screws needed to get the rig on the air when you put the board in. BNC RF connector, barrel power connector, etc. I'll get details from Dave Benson, NN1G. A Ten-Tec silk screened and painted enclosure. Very very neat. I've got one on order for myself and MY 30M rig will be in it for the adventure.

Anyone else wanna sponsor other awards, just send me email.

OK Scottie, Flame Suit ON!!!

Play fair Kids.

dit dit

Chuck Adams K5FO CP-60 adams@sgi.com

From owner-qrp-1@netcom.com Wed May 3 17:09:34 1995
Date: Wed, 3 May 95 13:09:34 EDT
Message-Id: <heH8+1evdjA@PAMDT.ANG.AF.MIL>
From: <CBAILEY@PAMDT.ANG.AF.MIL> (MSgt Cameron C.R. Bailey)
Subject: re: IQ130

Great idea Chuck.

Since you were mobile for 30 hours thinking about this, why didn't you consider those who may like to operate *mobile*? I might consider it if you allow mobile operation. You could limit the mobiles to operate only in the section they chose for operation. (No, I'm not asking for another prize category). We all know mobile QRP will not be an edge except allow more operating time for those who have a long commute. :-)

72 de cameron, kt3a

Thanks for the refund Chuck. I'll put it to good use.

Cam Bailey

SOGNET LAN Administrator (Banyan)
211 Engineering Installation Squadron
Fort Indiantown Gap (Annville) PA
DSN: 491-8737 Comm: 717-861-8737 FAX: 8268

From owner-qrp-1@netcom.com Wed May 3 16:16:53 1995
Date: Wed, 3 May 1995 11:16:53 -0500
From: adams@chuck.dallas.sgi.com (chuck adams)
Message-Id: <199505031616.LAA06267@chuck.dallas.sgi.com>
Subject: IQ130 Mod

Gang,

See, I'm not difficult to get along with.

Bob Nygren, WA3YON, sent me a message pointing out that "30 hours of gazing at a dashed line can put one into a very deep Zen like state". He is right.

He also mentioned that restricted the IQ130 EXERCISE to HB only might reduce activity, and that was not my intent, so as of this moment I will modify the "guidelines" to remove that restriction. Commercial rigs are allowed as long as they are run QRP levels.

I'll add a 1,000 point bonus for HB rig in the scoring and go from there.

Looks like we might get comparable levels to the foxhunt on 40M for enrollment. It is very very good to see that the members of this list are operators. If everyone just stayed at home and built, there would be no QRP. I compare this to the falling tree in a forest with noone around to hear it legend. Physically the tree does generate a "noise" but it doesn't serve any purpose other than to keep the laws of Physics intact.

bk to regularly scheduled programming

dit dit

Chuck Adams K5FO CP-60 adams@sgi.com

From owner-qrp-1@netcom.com Tue May 2 20:39:46 1995
Date: Tue, 2 May 95 13:39:46 MST
From: gervaj@master.lds-az.loral.com (Joe Gervais)
Message-Id: <9505022039.AA25248@master.lds-az.loral.com>
Subject: It came from Dayton...

Paul, NA5N (pharden@aoc.nrao.edu) wrote:

> That's about it ... I think I touched on all the main topics we've been
> missing now this week! Well except for those obscure "UNSUBSCRIBE"
> messages ... not ready to do that just yet. (Of course by now, many of
> you are probably trying to figure out how to do it for me, right?)

Whew, I'm just glad you didn't bring up what should qualify as homebrew gear in contests. Or whether large antennas count as "real" QRP. Or... (Sounds of angry torch-wielding mob begin to echo through my office hallway...) :)

Still testing my email account (been flakey) but I've been reading the list for a week or two. Move to Phoenix went well (thanks to all those who offered email/ham help, I'm still catching up!) and I have to say I really like the ol' Valley of the Convection Oven. 'Course it isn't 120 degrees yet either...

Does anyone have a collection of NorCal-40a tweeks/hints that have appeared here over the last six weeks? I'm halfway through building mine (just the toroids left to wind, so I figure that's halfway :) and was wondering if any new bits of info had appeared.

BTW, I'm hoping to paint my case with a detailed map of the world. Really! I'm just trying to find a good pattern to use. Yeah, I know - Get a map! But I'd rather be able to trace a map that's already to scale. I'm pushing my artistic skills (or lack thereof) well beyond their limits as it is.

7.3 de KD6PRD/7,

-Joe
gervaj@master.lds-az.loral.com

(Quite possibly the ugliest email adress I've ever had!)

From owner-qrp-l@netcom.com Wed May 3 21:54:11 1995
From: Bill Northup <northup@sw.stratus.com>
Message-Id: <199505032154.RAA05842@blackdog.sw.stratus.com>
Subject: Need help for IQ130
Date: Wed, 3 May 1995 17:54:11 -0400 (EDT)

I need a little help getting ready for the IQ130. I have a NorCal40a that I am about to start building, and have been thinking of building it for 30 meters. Now I have been pushed over the edge I am going to build it for 30 meters and have all the parts that I need except for a matched set of 8 mhz crystals.

questions:

- 1 Does anyone have a matched set that they want to sell ?
- 2 Any suggestion on where I can find the crystals ?
- 3 How does one go about measuring them ?

thanks

Bill

--

Bill Northup	PHONE:	(508) 460-2085
Stratus Computer Inc.	INTERNET:	northup@sw.stratus.com
55 Fairbanks Boulevard	Amateur Radio:	N1QPR
Marlboro, MA 01752		QRP-NE #307

From owner-qrp-l@netcom.com Wed May 3 16:35:32 1995
Message-Id: <9505031632.AA22302@us1rmc.bb.dec.com>
Date: Wed, 3 May 95 12:35:32 EDT
From: "Dennis, K1YPP, 226-5982" <blanchard@nac.enet.dec.com>
Subject: Newsletter article (Long)

Here is the newsletter article on batteries and charging. This is the basis of the presentation that was given at this years Dayton Hamvention. We are working on having a place to post this stuff and then folks can FTP it etc. For those that cannot FTP we will set up an E-mail list and from time to time will supply newsletter articles etc. for clubs that are interested.

72'

Dennis, K1YPP

(PART I)

BATTERY TECHNOLOGY IN THE 90'S

"TO CHARGE OR NOT TO CHARGE, THAT IS THE QUESTION."

By Dennis Blanchard, K1YPP
JADE PRODUCTS INC.
Engineer

Batteries are a blessing and a curse, all in the same package. The choices are many, as are the sizes and packages. Unfortunately, this causes a dilemma; which one to use, when to use it, and how to maintain it.

The traditional choices for batteries are the NiCad, Dry-Cell, Wet-Cell and Gelled electrolyte Lead Acid and Alkaline. Some of the newer devices that are available now include the NiMH (Nickel-Metal-Hydride, a NiCad look alike), Lithium, Zinc-Air (Uses oxygen from the air) and "Smart Batteries".

QRP operators use batteries more often than most amateurs simply because we tend to be more portable in our operations. Low power and small size is conducive to battery power. This is not to say that higher power is not possible using batteries, my own personal station consists of a Drake TR-7A that sees full power usage on occasion. The batteries of choice appear to be NiCad and Gelled-electrolyte. Unfortunately, when those NiCads are no longer usable they end up in the landfill, which is more and more becoming illegal. They're toxic.

Pound for pound a NiCad can give one more current than most other portable batteries. The NiMH battery also has high current capacity and is less toxic, although not entirely. Their popularity stems from the fact that there has been a trend in Walkie-talkie devices for higher and higher power.

We as Amateur Radio operators must ask ourselves if this is really the right direction to be going in. It has not yet been proven, but there appears to be some evidence that high power, particularly at VHF and UHF (144, 220, 1296 MHz etc.) may be harmful. Microwave ovens operate near 1296 MHz and even the 500 Watt ovens cook very well, do we really want 5 watts next to the brain cells (20 dB less than the oven, of course the oven is shielded, isn't it)? One need

only look around at a Ham Convention to realize that the effects are already there, look at all the gray and balding heads, is this the result of too much RF too close? Just kidding. Seriously, we QRP operators should start pushing for lower power portable VHF/UHF hand-helds, the higher power really is unnecessary, particularly for line of site VHF communications.

A question is commonly asked: "Can I charge my NiCad battery with a lead-acid (often motorcycle or small automobile battery) charger? The answer is no. The charging curve for these batteries is in no way related. There are devices on the market however that can be programmed to do both, I refer you to the piece that accompanies this article by Warren Dion, N1BBH, for the specific devices.

The charger must accomplish several different things: Bulk charging, final charging and maintenance. Bulk charging is easy, force a high current into the battery until it nears complete charge. Now things get more difficult, we want to complete the final charging stage. This is where the "smart chips" make life easier. These chips watch the charging curve of the battery and as the slope of the curve changes they compensate the current going to the battery to level things off without overheating the battery or doing other damage. Once the final charging is completed the charger must now be smart enough to "hold" the battery at some state, ready for use, this is the "float" voltage.

The floating state is usually at some preset voltage point. By referencing a voltage the charger doesn't care how big the battery is. If it were current referenced then the size of the battery would have to be known ahead of time, a 12 volt battery will always use the same charging points on the curve, different sized batteries could have vastly different currents to maintain them.

The chip must be smart enough to monitor things once the charge is completed, and without exception they now all do this.

A typical charger has a power line rectifier (or solar panel) which goes through some sort of filter to create a DC that may not be well filtered. Unlike a power supply, a hefty filter is neither necessary nor desirable. The ripple in the DC gives the DC a lower average value and as long as that value stays above some minimum point the charger will supply the needed current. If the DC is at some high

average (which would mean a more complicated, expensive filter) then the heat sink will have to dissipate more heat to make up for the Voltage drop.

The battery makes a pretty good filter capacitor, so equipment in use while the charger is running will not experience too much trouble with hum. Some filtering between the load and the battery can be used if this is a problem.

The charger will use the DC from the rectifier to go through a pass device such as a pass transistor. In a situation where the battery is severely discharged the pass transistor may have to dissipate rather substantial amounts of heat. For example, a 12 V battery has been discharged to 3 volts. The charger bulk power supply voltage is up around 20 volts. $20V - 3V = 17$ Volts drop. If the charger is to supply a 1 amp charge rate this will mean the heat sink and pass transistor will have to get rid of $17V \times 1 A = 17$ Watts. Some chargers (such as the Jade Products Inc Fun Kits...how's that for a commercial?) have a feature that looks at the battery and if it is below some pre-set level it will only trickle charge the battery until it reaches a higher voltage, for example 10.5 volts, before charging at the bulk rate. This now reduces the heat wasted to $(20V - 10V) \times 1$ Amp = 10 watts, a substantial decrease.

These circuits are easy to build but can be deceptively tricky to get running if something is not right. It is a circuit where the output affects what the input is doing and the input can affect what the output is doing, it is the traditional loop feedback circuit. One thing that has caught more than one builder is that the charger doesn't put out any real power until a battery is connected. If one puts a dummy load out there to test it, there will be very little output because the charger is looking for the condition of the battery and it is not going to charge a dead battery at full rate, it will charge at a trickle. This is very different from the typical brute-force charger found in a department store.

Another feature that some charger chips employ now is the "burping" technology. In essence what this means is the charger puts a high current charge into the battery for some pre-determined time, for example 980 milliseconds. The charger then takes a coffee break for about 10 Milliseconds and does nothing, then it reverses the charging voltage, that's right it hooks things up backwards for about 15 milliseconds and then takes a voltage reading on the battery

to see where the charge state of the battery is. Why the reverse current you ask, simple, this reverses some of the chemical process that heats the battery up during heavy charging and stabilizes the chemical reaction. It "burps" the battery. I believe ICS corporation has the Patent on that one.

Earlier a smart battery was mentioned. There is a standard starting to evolve around batteries to start getting batteries into some generic forms so that every device that seems to hit the market doesn't have a unique battery that cannot seem to be found anywhere. This standard will define the battery package, ratings and monitoring function. The batteries have a liquid crystal display showing its state of charge, current rate of use, and how much longer it can go, internal temperature etc. They also have an external bus connection to tell the user load this information, such as a computer or walkie-talkie so that the user knows when to give things a rest and do a recharge. This is a vast improvement over the present few seconds between the battery light on the walkie goes out and the time that the battery goes dead.

One exciting developement in battery technology is presently available but hasn't as yet received much attention from the Amateur community. Ray-O-Vac Corporation has developed a rechargeable Alkaline battery called the RENEWAL Battery. It can be recharged 25 times. I can see the reader response now...Ho-Hum. But wait, theres more! Most NiCad manufacturers promise that the NiCad battery can be recharged hundreds to thousands of times. Sure. They can, but that is under ideal conditions. What is the real world like? Most amateurs are very random when it comes to battery use. The walkie will sit for days, even months before it gets used. Good NiCads commit suicide at the rate of 1.5% per day and that's the good ones, in other words, they self-discharge at that rate. In 90 days the battery is dead. I have tested some inexpensive ones available from a major local electronics supplier and they died at 4% per day, they were dead in a month. This is why upon purchase one must charge the NiCad before use, it is usually technically dead because it has been sitting on the shelf since it was originally manufactured and charged.

As mentioned earlier, NiCads are toxic, don't throw them in the landfill. Many states now have recycle centers for them. Contact the manufacturer if you don't know what to do with the dead ones.

NiCads are particularly fussy about charging, and to some lesser degree, so are NiMH batteries. They don't like to be charged mid-cycle. They really must be discharged all the way to properly re-charge. Some of the new chips consider this and force a discharge if the battery is not fully discharged. The Maxim 712/713 series support this. If this is not done the battery will develop the "memory" problem that is so often spoken of. In reality more NiCads die from abuse than memory failures. Hobbies like RC cars are much nicer to the batteries, they tend to play with the car until it slows down because the battery needs charging, then PLUNK, into the charger with the batteries for a full recharge.

Amateurs on the other hand operate in more of a "stand-by" mode where we want that walkie to be ready when needed. Unfortunately, trickle charges are not really that good for the NiCad, but then neither is sitting around unused, so it is a lose-lose situation.

The RENEWAL battery on the other hand is a really long life battery. After a shelf life of FIVE years it is only discharged by 5%. It is almost like new! Not only that, it stores about three times as much power per charge as does the NiCad so it is still really useful. It has one limitation that the high powered walkie talkies don't like, it should only be used on steady loads of about 400 MA maximum and peak loads of about 1.5 Amps. NiCads can offer many times that. Still, in low power mode and for QRP operation this battery is a real winner.

The RENEWAL battery charger is made by Ray-O-VAC and is available almost everywhere now. I have purchased one in a drug store and the other in a major retail store. Keep the booklet that comes with the charger, it is loaded with coupons for real price cuts on future purchases of both batteries and chargers.

JADE PRODUCTS INC. is in no way involved with Ray-O-Vac Corporation. The above comments are my personal observations about this wonderful battery. Give them a call or write for the Applications notes & Data Sheet on the RENEWAL battery line, it will convince you. Their address and some other pertinent addresses follow at the end of this article.

Now to dispel a few myths.

The first one concerns setting a Lead-Acid automobile battery on concrete for an extended period of time. Common knowledge says this will kill the battery. My experience with this myth has uncovered the following scenario: A battery becomes spare because an automobile on its last legs decides to die on the first really cold day of winter. After cranking the daylights out of this engine that refuses to start it is decided to junk the car. Another reason it may become spare is because the automobile was in an accident. Since the battery appeared to be in good health when the accident occurred it is decided that the battery should be saved before the car is sent to the bone-yard. Unknown to the owner the electrical system of the automobile experienced a short circuit and the battery was discharged severely. Since this now "spare" battery has no immediate use it is placed on the concrete floor of the garage, or in some cases the cellar. There it sits, lost, forgotten and probably near dead from having the daylights cranked out of it before being sentenced to the concrete floor. Ohmic resistance of the plastic between the connection posts is in the billions of ohms. At twelve volts, to discharge the battery through this plastic would take longer than most of us have to live. The real reason the battery goes dead is because it was left in terrible condition and allowed to freeze a few times during the winter. Truly the death sentence. The myth about putting a block of wood under the battery will not help, proper charging and maintenance may have.

Gelled Electrolyte batteries are finicky devils. One must carefully charge them. I can't begin to relate how many times I have people tell me they charge these expensive devices with very primitive chargers, such as those sold in the department stores. These charger are often used for this task and for a while they will work, however, the battery will not last long. As little as a 5% deviation from proper charging rates can shorten the life of this type of battery by half! Regular lead acid batteries are far more forgiving.

It is fortunate that there isn't a branch of government to look after abused batteries, I suspect they would have a substantial workload.

This previous scenario reminds me of the story of the fellow that decided he was going to experiment with feeding his

horse saw dust instead of oats. He figured he would increase the proportion of saw dust a little each day and decrease the oats. At first he bragged about the experiment far and near and about how well it was going. After a while he didn't say anything more about the experiment. A curious friend finally asked: "Hey Hank, whatever happened with your horse-saw dust experiment, how did it go"? "Well", replied Hank, " It went darned well for some time, but then all of a sudden that fool horse just up and died before I could finish the experiment!"

Another myth concerns the short life of automobile batteries when used as backup batteries for repeaters or home stations. It is true that they will not last as long as deep cycle batteries if certain measures are not followed. One of the reasons the deep cycle batteries last longer is because they allow space under the plates in the cells for flakes of material to accumulate. This material falls there as a function of aging of the battery and if it piles high enough it can start to internally short the cells. There are also chemicals in the deep cycle battery to reduce this flaking action. One can prolong the life of the automobile battery by simply giving it a good "shake" once in a while to level out the flake accumulation. My personal station is a Drake TR-7 (Ah-ha, so K1YPP doesn't always run QRP!!! Honest, I do most of the time.). It uses an automobile battery and a JADE PRODUCTS INC. 1 amp charger and has been running this way so long now I have forgotten when it was installed. The battery is as good as new and it does get a shake every now and then.

Hopefully this rather long winded piece has been informative and instructive. (If you think this was long winded, hook up with me on 3.720 or 7.120 MHz on Sunday mornings!). Batteries have been around for a long time and with electric transportation in the near future interest in them can only increase. Take good care of those devices and they will serve you well. Start letting the major walkie manufacturers know that you are more interested in long operating sessions than high power operation and force them to start using those rechargable alkaline batteries, they really are nice.

72' de Dennis, K1YPP

SOME USEFUL CONTACTS:

Ray-O-Vac Corp.

JADE PRODUCT INC.

OEM Sales and
Marketing
P.O. Box 44960
Madison, WI, 53744-
4960
TEL: (608) 275-4694
FAX: (608) 275-4973

PO BOX 368
E. HAMPSTEAD, NH 03826-0368
TEL: (603) 329-6995
FAX: (603) 329-4499

RENEWAL Batteries
RENEWAL CHARGERS

Gel/Lead Acid Chargers
Solar Chargers
Chips and components

(PART II)

Batteries, Batteries, Batteries!

or

Chargers, Chargers, Chargers!

by

Warren E. "Bud" Dion

All the world is going portable; heck, it already has! New and improved batteries are emerging. "Portable by Design" conferences are being held. Attention is focusing on how best to suit the new batteries to their new uses. Emphasis, long overdue, is being place on how to treat our batteries to provide life and capacity hitherto unknown. Charges are giving way to battery-management-systems. Calling these devices "chargers" is like referring to your PC as an "adding machine". A new day is dawning and the chip makers are not asleep.

New chips do far more than the old-fashioned chargers, which often accepted overcharging and undercharging as necessary evils. Now they can look after your battery pack, maintain its health, even rejuvenate tired cells. Here are a few of the things they can do for you:

1. Wouldn't it be nice if you could hire a small boy to disconnect your battery from the charging source every second, read and store its open-circuit voltage, and get right back to charging? These chips do just that.

2. The provide charge termination, based on known battery dynamics. For NiCads this includes -V, which uses

the slight drop in open terminal voltage to sense full charge. For NiMh cells they respond to the flattening-out of the O.T.V. (Output Terminating Voltage).

3. Offer charge termination's via battery temperature: +T. (Requires a thermistor)

4. Termination based on charging time. (Insurance, really)

5. Pre-discharge -- fights NiCad "memory" loss.

6. Pre-testing for temperature, state of charge, voltage, polarity, before the charging process can begin.

7. Full charging in as little as 15 minutes without damage.

8. Shaking -up (burping) the battery between charging current pulses; which cleans the bubbles off the electrodes, allowing more rapid charge acceptance.

9. Top-off, to get that last bit of capacity.

10. Maintain the charge

11. Some chips include a cool, chopper-type current-limiting function. Most leave it up to the user. It's a nifty function, though!

12. Most chips cost less than ten dollars.

13. The bad news is that no chip can provide all the above goodies. There are trade-off's. The EnChip is the most versatile, but at a very high price.

Now let's back up and refer to the manual that came with your good ole HT. It told you to put your batteries on the charger for 14 to 16 hours, urging you to be sure that they were fully discharged before you start. Of course, they seldom were. How about the new cell that you just substituted for that bummer in the middle of the string? UGH! Why? Well, the 16-hour rate was low--and-slow enough to remain within the safe overcharge capabilities of the NiCads. Sort of like driving without a fuel gage, and a tank that takes all day to fill! A spare battery pack may become more of a convenience than a necessity.

Inevitably, equipment developers are going to incorporate advanced battery management systems into their coming products. Also look for battery packs with built-in chargers, as well as thermistors. Maybe you are already working on such a project, but right now, poor ole hams who are tired of waiting 16 hours for their packs to come back to life can avail themselves of the advantages of the new chips. Everything from raw chips, and kits to finished assemblies are available. The accompanying table is a list of some of these chips with notes as to their respective attributes.

Mfgr	Part	Batt. Type	- V	+ V	Pre- check	Curr Limit	Top Off	Main- tain	Notes
Bench- marq	BQ2003	NiCad	Y	Y	Y	Y	Y	Y	1
		NiMH							
Maxim	MAX 712 MAX 713	NiCad	Y	Y	Y	N	Y	Y	
		NiMH							
ICS	1700A	NiCad	Y	Y	Y	N	Y	Y	2
Philips	TEA1101	NiCad	Y	Y	Y			Y	
EnChip	ECS-II	NiCad NiMH Pb-Ac	Y	Y	Y		Y	Y	3
Dallas	DS 1633	NiCad NiMH Pb-Ac Li			Y			Y	4
Shore- line Elect- ronic	ATC106	NiCad NiMH	Y	Y	Y			Y	

Notes:

1. The BQ2003 has chopper-type current limiting function. It also has a hardware initiated pre-discharge function.

2. The 1700A provides a unique, programmed reversed - pulse ("burping") feature.

3. Looks like it does everything, but is expensive.
Made in Austria.

4. Interesting, three-terminal T0220 device. User-programmed via a single, serial pin!

GENERAL:

A. Most, if not all, chips include max-time limiting function.

B. Blank cells in the above table echo the author's mind on the respective item.

From owner-qrp-l@netcom.com Tue May 2 13:17:06 1995
Message-Id: <9505021317.AA27088@us1rmc.bb.dec.com>
Date: Tue, 2 May 95 09:17:06 EDT
From: Bill Acito 02-May-1995 0906 <acito@asdg.enet.dec.com>
Subject: re: NorCal 40/40A sidetone, etc.

Wayne Burdick wrote:

|If the sidetone is WAY too loud, it means that the AGC JFETs are
|not being turned off completely. I know of at least two
|instances of this that were due to the use of a 5V regulator
|(78L05) instead of an 8V regulator (78L08). With only 5 volts at
|pin 8 of the product detector, the voltage at the source leads of
|the JFETs would be too low--under 4 volts--to allow a gate
|voltage of zero to cut the devices off on transmit.

I think I have this problem on my Norcal 40. Before I write an order to Digikey (and get creative to get to the \$25 min), does anyone have one of these rascals (78L08) laying around that I could purchase? Do one of the small vendors carry these?

btw, I have modified my Norcal 40 to just over 65Khz spread--raised the tank cap to 75pf, removed a couple of turns, and swapped out the tuning pot for a ten-turn pot. A second hole in the original case, just above the first, allows the pot to fit and clear the board and the adjustment cap. A large 14 turn dial (about 2" in diameter) picked up a flea for a \$1 completes the mod. Just had to make a quick reference chart to calibrate the dial. RIT is a bit more sensitive than I would like, but I like having more room to work.

b

. - I own my own words -

Bill Acito	d i g i t a l
acito@asdgenet.dec.com	Digital Semiconductor - Fab 6
	Hudson, MA
kc1gs (qrp-ne #260, arrl life)	

From owner-qrp-l@netcom.com Wed May 3 18:58:02 1995
Message-Id: <n1412612952.57864@wgs-2.bwi.bls.com>
Date: 3 May 1995 13:58:02 -0500
From: "evans ken" <evans.ken@wgs-2.bwi.bls.com>
Subject: North Georgia QRP Group

First let me apologize for using this bandwidth to all who are not near Atlanta. This is one way I'm trying to reach some local QRPers.

After returning from Dayton, Jim Stafford (W4Q0) and myself have decided to form a North Georgia QRP Group (NOGA). We see it as a way to exchange QRP information, get more hams into QRPing, and generally have a good time with the hobby. We also envision club construction & design projects and operating activities. If you are interested, please respond to me at this E-mail address, or call me at 404-564-3749. Pass along your name, call and phone number/E-mail address. After we establish a list of interested parties, we will start to meet periodically in the North Georgia area.

Looking forward to hearing from North Georgia QRPers!

72 & 73,

Ken
KJ4XR

From owner-qrp-l@netcom.com Tue May 2 21:49:49 1995
Date: Tue, 2 May 1995 21:49:49 GMT
From: Goran Hosinsky <hosinsky@royac.iac.es>
Message-Id: <9505022149.AA12667@royac4.royac.iac.es>
Subject: Not a weather report

You lucky guys with experience from Dayton please help me with this problem:

I am very isolated on this island but I hope to have the possibility of an eyball qso with Daniel soon. Now my question is: For an two way eyball qrp qso, do we have to whisper?

Goran EA8YU

From owner-qrp-l@netcom.com Wed May 3 15:47:13 1995
Date: Wed, 3 May 1995 08:47:13 -0700 (PDT)
From: Monte Stark <ku7y@sage.dri.edu>
Subject: Re: Not a weather report
Message-Id: <Pine.SUN.3.90.950503084602.17977A-100000@nimbus>

On Tue, 2 May 1995, Goran Hosinsky wrote:

>
> You lucky guys with experience from Dayton please help me with
> this problem:
> I am very isolated on this island but I hope to have the
> possibility of an eyball qso with Daniel soon. Now my
> question is: For an two way eyball qrp qso, do we have
> to whisper?
>
> Goran EA8YU
>

No talking at all. Left eye is dahs, right eye is dits.....Extra points for doing is with all lights out..... :-)

73, Ron

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
.....ku7y@sage.dri.edu.....Sun Valley, Nevada....
.....ARRL.....NorCal #330.....NRA LIFE.....

From owner-qrp-l@netcom.com Wed May 3 19:24:37 1995
Date: Wed, 3 May 1995 14:24:37 -0500
From: adams@chuck.dallas.sgi.com (chuck adams)
Message-Id: <199505031924.0AA06786@chuck.dallas.sgi.com>
Subject: Photos

Gang,

I got back all the 36 photos that I took at Dayton.

As a trial I have one photo of Roy, W7EL, and Ernie, W8MVN, sitting in front of the model of Ernie's antenna system.

This is a trial to see how it going to work.

At ftp.sgi.com in the pub/ directory there are two files, chuck1.gif and chuck1.jpg for gif and jpeg respectively. The gif takes 133,322 bytes and the jpg file takes 26,975 bytes. The photo is 598x381 pixels with 115 colors.

The photo was scanned in using an HP scanner with 100 dpi resolution.

I want feedback (to me not the net, unless we want anti-pix traffic instead of wx :-)) :-)) :-)) for the humour impaired) on what you think. I will later post more. I have to go and figure who is who and then request permission to post picture. I'd hate to do this without permission. I may request email telling me what you were wearing on Saturday nite so that I can see who you are. A lot of people I know and can identify, but there were some that I didn't get.

The model is for a 50' tower with delta loops and 5 band quad on the top. Awesome antenna system and great for QRP work.

Also, received bad news that I will not be able to do FD this year. Won free trip to Cancun Mexico and it is only for that weekend. Geeez. Why me?

dit dit

Chuck Adams K5FO CP-60 adams@sgi.com

From owner-qrp-1@netcom.com Tue May 2 19:11:17 1995
Date: Tue, 02 May 95 14:11:17 EST
From: John Foote <footej@hn.va.nec.com>
Message-Id: <9504027994.AA799449077@bills.hn.va.nec.com>
Subject: Post Dayton deprivation syndrome

Paul,

Those of us that must endure "Dayton Envy" will nonetheless have our day. How about another uncontest on 30 meters? 30 has been great lately, and later into the nigh, too.

My qrp rig is the color it was painted before it left ICOM, in Japan. (Just think, pretty soon I'll be both a qrp snob and an ICOM bigot, simultaneously!)

de KR4GL
John Foote
HW SK CLR

----- Reply Separator -----

Subject: Dayton or everybody died?

Author: Paul Harden <pharden@aoc.nrao.edu> at hdnsmt

Date: 5/2/95 1:46 PM

Gang,

I mean like hey dudes, I kinda knew the rappin' would slow down a bit during Dayton, but this is ridiculous, like real far-out (oops, I think far-out was one of those 60's things).

Anybody know when this build-a-QRP-rig contest thing at Dayton is? I was gonna try and cruise around 7040 early that evening and see if I can hear anyone trying out their rigs from this event, or anyone else for that matter at Dayton.

And for those missing the Dayton WX summaries ... I can tell you its about 85 degrees, calm and perfectly blue skies here in New Mexico. Haven't heard W8MVN for over a week. I paint my rigs either light grey or avocado green, if not just bare polished aluminum. I don't sign my QSO's with CL or SK, but merely "dit dit." I haven't received ANY of the ARCI awards yet either (also haven't applied for any!). And I have NOTHING I'm willing to sell.

That's about it ... I think I touched on all the main topics we've been missing now this week! Well except for those obscure "UNSUBSCRIBE" messages ... not ready to do that just yet. (Of course by now, many of you are probably trying to figure out how to do it for me, right?)

72, Paul NA5N

QRP-L during Dayton is like being the Maytag repairman.

From owner-qrp-l@netcom.com Tue May 2 21:52:19 1995
From: THamm40820@aol.com
Date: Tue, 2 May 1995 17:52:19 -0400
Message-Id: <950502174443_104348669@aol.com>
Subject: qrp net

Unsubscribe.

From owner-qrp-l@netcom.com Thu May 4 01:12:22 1995
Subject: Re: RFD: rec.radio.amateur.low-profile
From: jgrubs@voxbox.norden1.com (Jim Grubs, W8GRT)
Message-Id: <BJyJ5c1w165w@voxbox.norden1.com>
Date: Wed, 03 May 95 21:12:22 EDT

Path: voxbox!jgrubs
From: jgrubs@voxbox.norden1.com (Jim Grubs, W8GRT)
Newsgroups:
news.groups,rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.hom
ebrew,rec.radio.amateur.policy,rec.radio.amateur.equipment
Subject: Re: RFD: rec.radio.amateur.low-profile
Message-ID: <u6wJ5c1w165w@voxbox.norden1.com>
Date: Wed, 03 May 95 20:42:41 EDT
References: <rwa.799088205@atha>
Reply-To: jgrubs@voxbox.norden1.com (Jim Grubs, W8GRT)
Organization: Voxbox Enterprises

-----BEGIN PGP SIGNED MESSAGE-----

rwa@cs.athabascau.ca (Ross Alexander) writes:

> mark@ve6mgs.ampr.ab.ca (Mark Gregory Salyzyn) writes:
>
> >rindberg@kendaco.telebyte.com (R. Lindberg & E. Winnie) writes:
>
> >>> In article <3nglq0\$7ps@wizard.uark.edu> plaws@comp.uark.edu (Peter Laws)
> >>> writes:
> >>> >How about rec.radio.amateur.qrp? That includes those of us in rental
> >>> >[...]
>
> >Gohd, I hate being prototypical, but a 'me too' for this one. When we were
> >[...]
>
> I also support .qrp rather than .low-profile. For a start, it's shorter :).

What do the folks in the qrp maillist think? From what I've seen, they're

happy where they are.

-----BEGIN PGP SIGNATURE-----

Version: 2.6.2

Comment: <http://norden1.com/~jim/sylvania.html>

iQCVAwUBL6gjZ974r4kaz3mVAQFZxAP+MeDgbTxv2RaLidirPiu68V/i4xDvoxc0
lnHUALQBAbwpTdNRlXt9JdzLerzKCZ60F+r0zDKkN8S2cr8TNhuCsZI7s00I9uzv
FSpm+6zfysP3+Jy1l0GrmDjvmxSXg8rMRsb7vMe1lcinjuzD3HJGraT8gmAauwyk
RokIZPevqxE=
=gvVz

-----END PGP SIGNATURE-----

From owner-qrp-1@netcom.com Wed May 3 17:59:17 1995

From: penc@psuh02meteo.psu.edu

Date: Wed, 3 May 1995 17:59:17 GMT

Message-Id: <95050317591658@psuh02meteo.psu.edu>

Subject: Sierra, Cascade info

Fellow QRPers:

I know this question was probably posed to the list at some time, but in one case I appeared not to receive the info, and the other I am not sure of.

- 1) Are the NORCAL folks (yes, I am a member but then again who here isn't?) taking orders for the Cascade yet? If so, could someone provide me with the latest poop on the order taking?
- 2) Cud one of you kind souls pass along the info on Wilderness Radio, and how I could get on the mailing list for the upcoming Sierra production? Also, does anyone at Wilderness have an email account so that I could simply email them to get onto their list for this product?

Finishing my PhD soon, so I'll have a few spare moments on hand in the upcoming few months so I can rekindle my electronics and building experience.

Pse email direct to me so as to avoid any potential flames from listers who pay for their email by the message. Enjoyed Doug's post on his experiences at Dayton. Hope to see it in print again in QRPP!

de Rich Penc

penc@psumeteo.psu.edu

WK2A/3 dit dit

"dit dit" is Copyright Chuck Adams (so appropriate credit is given)

From owner-qrp-1@netcom.com Wed May 3 12:21:06 1995
From: JDuffy@aol.com
Date: Wed, 3 May 1995 08:21:06 -0400
Message-Id: <950503080929_105132668@aol.com>
Subject: STL's QRP FD challenge

Having been one of the first members of the St. Louis QRP club and having worked with them on the first STL QRP field day (still have some pictures) I can tell you these guys are great at homebrewing everything. They're way ahead of the rest of us.

I looking for any Cincinnati amateurs that are interested in putting together a QRP group to work this field day. Can have the use of a park in Anderson Township (I'm one of the park commissioners - how convenient!) Please E-Mail (jduffy@aol.com).

Regards,

Duffy - WB8NUT

From owner-qrp-1@netcom.com Wed May 3 00:49:15 1995
Message-Id: <n1412681879.74147@msmailgw1.arlut.utexas.edu>
Date: 2 May 1995 18:49:15 -0600
From: "rohre" <rohre@arlut.utexas.edu>
Subject: VX0 information from the texts

Dan Reynolds questions on VX0 : I went and dug out Doug Demaw's books on solid state design and qrp.

Also looked at Handbooks, etc. and this is distilled from various sources.

"Solid State Design"-Inductance to vary a crystal up to 15 k Hz on a 7 M Hz crystal.

It takes "a few micro henries per K Hz." The maximum variation you can expect is 0.2% of the crystal frequency.

AT cut crystals can be varied, but HC 6U have the best result when you vary them.

At higher crystal frequency, you get greater variation by a tuning (VX0) element.

For a 30 pf crystal load capacitance, (FT 243 are 32 pf), you can get 10 k Hz at 14 M Hz. The crystal is seriesed with 15 micro henry coil, of Q 75 plus, and the coil is in series with 75 pf capacitor to ground. This VX0 uses a crystal

cut for the high frequency range of what you want to vary.

Apparently, the best effect is when there are lower capacitance strays in the circuit.

Typical inductors seem to be 10 micro henries for 15-20 MHz crystal.

20 micro H. for 7-15 MHz crystal.

A 3 kHz variation was obtained at 3.5 MHz with 40 micro henry coil, and Q or over 50.

I also found a table of values for a 2N2222 oscillator for 80, 40, 30, 20, and 15 M., but the inductors were given as so many turns of such and such toroid, and that is not as helpful without the wire size and inductance value. The delta f that design got varied from 3-5 kHz at 80 to 12-14 kHz at 15 M. Pretty much in line with that info above given with coil inductance values. This latter circuit had parallel caps of values of 365 pf on 80M and 40, to 150 on 30 M and 50 pf for 20M and 15M, to tune the crystal. If you need that coil info, mail me a request.

Well, that should be enough to make you think about whether to go with VXO or design a nice VFO to cover more ground.

72 all,
Stuart K5KVH

From owner-qrp-1@netcom.com Tue May 2 13:26:37 1995
Message-Id: <9505021326.AA05746@esds01.es.dupont.com>
Date: Tue, 2 May 95 09:26:37 EDT
From: "Stephen M. Shearer, 695-7719" <shearer@eplram.dnet.dupont.com>
Subject: RE: Web servers and QRP

>.....
>I suspect someone will set up a QRP www page soon with all this readily
>accessible.
>
>73/72/jim/w4qo

There is, Try <http://ncc1701-d.cc.nd.edu/qrp-1/>

73 Steve WB3LGC

From owner-qrp-l@netcom.com Tue May 2 21:26:00 1995
Message-Id: <m0s6PSR-000E6nC@dorite.iquest.net>
Date: Tue, 2 May 95 16:26 EST
From: allenj@iquest.net (Allen Jones)
Subject: Re: What color should I paint my rig?

>I find this thread of discussion about as stimulatig as the Dayton WX
>reports -- no wonder the Britt's think this list is too cluttered with junk
>(see comment in most recent issue of SPRAT)!
>
>Geezzz... don't you folks have something more productive to discuss??

I have to agree with you Larry. It seems likes things are a little out of hand . I last downloaded my mail from this list late Thursday afternoon. On Monday morning I downloaded 92 messages from qrp-l. 30% of them delt with the Dayton wx controversy and another 30% with the color scheme for the commercial version of the NorCal xcvr. Surely some of these messages could have been handled off the list. I do not have local access to the Internet and pay by the minute for my connect time.

72/73 Allen - K9DZE

From owner-qrp-l@netcom.com Tue May 2 12:24:50 1995
Date: Tue, 02 May 1995 07:24:50 -0500 (EST)
From: "David Moody, KD8NY" <MOODY@admin.rose-hulman.edu>
Subject: Re: What color should the rig be..... ?
Message-Id: <01HQ0PJPRB6KHTRWYV@ADMIN.Rose-Hulman.EDU>

IN%"rarland@epix.net" writes:
>On Mon, 1 May 1995, harry chase wrote:
>
>> This is *HAM* radio --- the rig should be PINK !!
>>
>> Harry
>> WA1VVH
>>
>You ARE one sick puppy!
>
>72 rich

Now if we are going to look at puppies, our color choices are pretty unlimited. I vote for Irish Setter Red. ;-)
Not sure how to keep the "fur" (no I am not considering using real dog fur for this) from getting tangled in the tuning vernier. I mean, well, if ZZ-Top can do it with guitars, well, hmmm... 8-)

Yeah, I know, rig-color-1 or maybe rig-finish-1.

My two milliwatts worth (if even that...)

72, David Moody, KD8NY

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David A. Moody           | E-mail: David.Moody@Rose-Hulman.edu  
Admin. Programmer/Analyst | Finger: mgrdam@crux.Rose-Hulman.edu  
Rose-Hulman Inst. of Tech. | Amateur Call: KD8NY (CW QRP) ex-WB9MMD  
Terre Haute, IN  USA  47803 | (VMS Rules!!! (but RSTS was fun.))  
Wk Ph:  812.877.8183      |  
-----
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Any facts expressed within belong to everybody.

Any opinions expressed within are my own and are not
necessarily the same as my employer, family, friends, etc.

It is up to you to know the difference.